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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/527,042	09/22/2005	Hee-Seob Kim	AB-1417 US	6829
32605 7590 05/18/2007 MACPHERSON KWOK CHEN & HEID LLP 2033 GATEWAY PLACE SUITE 400 SAN JOSE, CA 95110			EXAMINER DUDEK, JAMES A	
			ART UNIT 2871	PAPER NUMBER
			MAIL DATE 05/18/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/527,042	KIM ET AL.	
	Examiner	Art Unit	
	James A. Dudek	2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,3,12 and 13 is/are rejected.
- 7) ☒ Claim(s) 2 and 4-11 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: ____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/8/05</u> | 6) <input type="checkbox"/> Other: ____ |

Information Disclosure Statement

The information disclosure statement filed 3/8/05 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3 and 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 5870075 A (075).

FIG. 1

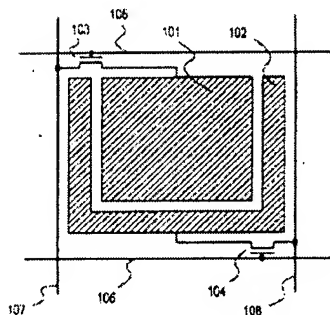
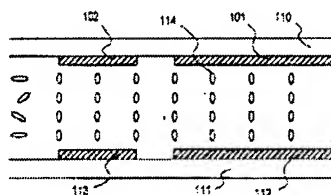


FIG. 2A



Per claim 1, 075 teaches a thin film transistor array panel comprising: an insulating substrate [111]; a plurality of first signal lines formed on the insulating substrate [105]; a plurality of second signal lines formed on the insulating substrate [107], insulated from the first signal lines, and intersecting the first signal lines; a plurality of pixel electrodes provided on the respective pixel areas defined by the intersections of the first and the second signal lines, [101]; a plurality of direction control electrodes provided on the respective pixel areas defined by the intersections of the first and the second signal lines [102]; a first thin film transistor connected to a relevant one of the first signal lines, a relevant one of the second signal lines and a relevant one of the pixel electrodes [103]; a second thin film transistor connected to a previous one of the first signal lines, a previous one of the second signal lines and a relevant one of the direction control electrodes [104]; and a third thin film transistor connected to the previous first signal line, the relevant second signal line and the relevant pixel electrode [not shown but would be the next pixel TFT connected to the pixel electrode].

Per claims 3 and 12, 075 teaches a thin film transistor array panel comprising: an insulating substrate [111]; a gate wire formed on the insulating substrate and including first to third gate electrodes and a plurality of gate lines [107, not shown be the 2nd-3rd gate electrodes are the for the next pixels] a gate insulating layer formed on the gate wire [inherent]; a semiconductor layer formed on the gate insulating layer [inherent]; a data wire formed on the semiconductor layer and including a plurality of data lines intersecting the gate lines, first to third source electrodes connected to the data lines, and first to third drain electrodes opposite the first to the third source electrodes with respect to the first to the third gate electrodes [106]; a direction control electrode connected to the second drain electrode [102]; a protective layer formed on the data wire and the direction control electrode and having a plurality of contact holes; and a pixel electrode formed on the protective layer [101], and electrically connected to the first and the third drain electrodes through the contact holes.

Per claim 13, 075 teaches the liquid crystal display of claim 12, but lacks the liquid crystal layer has negative dielectric anisotropy and major axes of liquid crystal molecules in the liquid crystal layer are aligned vertical to the first and the second substrates and the each pixel electrode having a cutout, and the negative. However it was well known to incorporate both negative vertically aligned liquid crystal and cutouts in order to improve viewing angle/contrast

and driving speeds. *Accordingly, it would have been obvious to one of ordinary skill at the time of invention to combine the well known cutouts and VA cell with 075.*

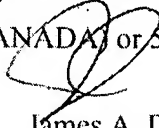
Allowable Subject Matter

Claims 2 and 4-11 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A. Dudek whose telephone number is 571-272-2290. The examiner can normally be reached on 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on 571-272-1787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


James A. Dudek
Primary Examiner
Art Unit 2871